able motion in the arm, and the trophic disturbances had nearly disappeared. At the expiration of two years and four months the child was able to raise the arm, and since October, 1907, the increase in the degree of motion in the muscles of the affected extremity had been very marked. The child could now bend the elbow, and had fairly satisfactory use of an arm which was at one time absolutely palsied.

Dr. J. Ramsay Hunt said that in one case of attempted nerve bridging that had come under his observation, in a child aged 20 months, the wound unfortunately became infected, suppurating for several weeks, and the arm was left in a worse condition than before the operation.

A NEW PLATE FOR DEFECT IN SKULL

By Charles A. Elsberg, M.D. (By invitation)

The patient was a boy of ten years who was admitted to Mt. Sinai Hospital on May 22, 1907, with the history that half an hour before admission he had fallen out of a second story window. He was brought to the hospital in a semi-conscious condition, with tonic and clonic convulsions of the right side of the face and of the right upper extremity. There was a large hematoma in the left parietal region. At the operation, which was done by Dr. Howard Lilienthal, there was found a depressed fracture, with considerable splintering of the fragments and an irregular fissured fracture running across the median line to the right parietal region. A large amount of bone had to be removed. There was an extensive extra-dural blood clot. Forty-eight hours after the operation there was complete paralysis of the right side of the body. In the belief that there was blood underneath the dura, the boy was again anesthetized, the wound reopened and the dura incised. A very profuse hemorrhage followed, which could only be controlled by tight packing with gauze. The patient recovered from this operation after a long and complicated convalescence, and was finally left with a large defect of the skull. There was a depression so large and deep that the greater part of the closed adult fist could be inserted into it. The deformity was a very ungainly one, and the parents of the child were anxious to have something done to remedy it.

On August 26, 1907, Dr. Elsberg made a large flap over the defect in the skull, turned down the skin and inserted an aluminum plate of his own design. The result was a very satisfactory one. The wound was entirely closed and healed by primary union. The boy was discharged cured on September 21. The splint employed in this case was made of aluminum, which could be cut into the shape desired without trouble. The plate had a number of arms which could be cut off at different lengths to fit into the irregular defect. The ends of the arms were split longitudinally for a short distance and one part of the arm then bent downwards. The entire plate was then bent to conform to the general shape of the skull. When in place, one part of the extremity of the arm rested on the outer surface of the skull along the edge of the defect; the other part rested against the cut edge of the skull along the margins of the defect. The plate was kept in position by a few catgut sutures which attached the horizontal part of the extremity of each arm to the periosteum. The advantages of this plate were the following: It formed a perfect arch, and the more pressure was put upon the arch from the outside, the firmer and stronger it became. It remained in place and made a firm support, bridging over the defect of the skull. It was easily made and easily inserted, and could be bent into any shape desired. It had none of the faults of plates which rested on the outside of the skull and were apt to shift their position, or of plates put inside of the bone, which rested directly upon the dura or the brain.

ACUTE TOXIC CHOREA

By B. Sachs, M.D.

In this paper, the writer called attention to a grave form of chorea which he had had occasion to study of late years, more particularly in his service at Mt. Sinai Hospital, namely, toxic or infectious chorea. So long ago as 1872 Pianese claimed to have isolated a diplococcus and a diplo-bacillus from the cervical cord and the cerebellum of a patient who had died of St. Vitus' dance, and by inoculating cultures of these microörganisms into animals, he claimed to have produced chorea in them. The findings and experiments of Pianese had not been substantiated by later observers. In 1894 Dana wrote a paper on the "Microbic Origin of Chorea," and reported a fatal case in a man 34 years old. In that case diplococci were found in the proliferating tissue between the meninges and the brain. Other authors had found staphylococci and streptococci in the blood of the heart of choreic patients: Heubner was the only one who succeeded in developing streptococci and staphylococci from the blood of a choreic patient taken during life, and by inoculation produced a streptococcic septicemia in mice. The very best work of this description was done by Cramer and Toebben, who succeeded in proving the presence of Gram positive cocci in the blood taken from one of their patients during life, and these bacteria were unmistakably streptococci.

We were only now beginning to have positive evidence of the existence of an infectious form of chorea, but the ground upon which this doctrine rested was still meagre. The most important step to be taken in every case of chorea, at least from a diagnostic point of view, was to make repeated blood examinations so as to prove the presence or absence of bacteria in the blood of the patient during the earlier stages of the disease.

The pathological and bacteriological studies suggested the infectious or toxic origin of certain forms of chorea; the clinical symptoms pointed with much greater force to the existence of a special infectious type of choreic disturbance. The clinical features of such a condition might be briefly summarized as follows: The disease might occur at any period of life, although most of those hitherto observed have been youthful persons. One of Cramer and Toebben's patients was only seven years of age, the other thirteen. Dr. Sachs said that in the cases he had seen, the patients were fifteen, eighteen and twenty-two years old, respectively. After a somewhat indefinite prodromal period of restlessness and slight twitchings, universal choreic movements of an extravagant type set in, which constituted the most prominent symptom of the disease. The jactations were so severe that the patients had to be restrained or carefully watched in padded beds. Erosions appeared all over the body,